Convulsions stopped (they had lasted for no more than 10 minutes), and subsequent blood glucose measurements were satisfactory. She was nauseated and complained of headache but had no neck stiffness, photophobia, or focal neurological signs. In a blood sample taken at 7 40 am the same morning the white cell count was $26{\cdot}2\times10^9$/l, 91% neutrophils. A medical senior registrar ordered blood cultures and a viral antibody screen to be performed. At 11 00 am her white cell count was $21{\cdot}4\times10^9$/l. Further investigations ordered included culture of nose, throat, rectal, and high vaginal swabs and a catheter specimen of urine. The following morning her white cell count was $12{\cdot}8\times10^9$/l. At no stage did she have fever or any symptoms not attributable to hypoglycaemia. All bacteriological and viral investigations yielded negative results. The patient remained well and at 38 weeks delivered a normal, healthy infant.

Given the combination of circumstances (late pregnancy, hypoglycaemia with concomitant adrenaline release, and a grand mal convulsion), the pronounced leucocytosis and its time course might reasonably have been predicted and the investigations, which were by no means trivial, either to the patient or to the laboratories, avoided.

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District cancer physicians

SIR,—We were surprised at the opinions expressed by Dr L J Donaldson (19 September, p 682) in response to the Association of Cancer Physicians' report recommending the appointment of 63 cancer physicians in district general hospitals in England and Wales.[1]

We would be concerned if Dr Donaldson's views were widely held, but we have reason to believe that they are not. Everyone knows that cancer services need improvement; three recent reports[2-4] have emphasised this, and two have stressed the need for more cancer physicians in district general hospitals as well as in university centres, while the Bagshawe report on acute services for cancer[4] emphasises that "the treatment of cancer patients should be firmly based within the district hospital service." Clearly, the provision of more cancer physicians is only part of the solution. We fully support the view that more radiotherapists are also needed, as are surgeons, gynaecologists, paediatric oncologists, and community physicians with a special interest in cancer.

Dr Donaldson asserts that health authorities are wary of the increased costs that the appointment of cancer physicians would create. This is misinformed, since the appointment of a cancer physician reduces expenditure on cytotoxic drugs and results in their more efficient use (Royal College of Physicians, 1986 (comitia document 86/15)). Furthermore, when a delegation led by Sir Raymond Hoffenberg discussed this issue with the Chief Medical Officer these views were sympathetically received at the Department of Health and Social Security.

Cancer services need improving because patients need better overall care. There is more to care than chemotherapy; flippant remarks about magic bullets do not advance serious discussion about how the lot of the patient with cancer can be improved. More cancer physicians in the community would help to ameliorate what is currently a totally unacceptable situation.

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1 McIllmurray MB. District cancer physicians: report of a working group of the Association of Cancer Physicians. *J R Coll Physicians Lond* 1987;21:117-21.
2 London Health Planning Consortium Study Group on Radiotherapy and Oncology. *Report*. London: Department of Health and Social Security, 1979.
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4 Standing Medical Advisory Committee. *Report of the working group on acute services for cancer*. London: Department of Health and Social Security, 1984.

SIR,—The proposals of the working party of the Association of Cancer Physicians for a network of cancer physicians, discussed by Dr L J Donaldson, appear to reflect the needs of the patients using our service.

BACUP (British Association of Cancer United Patients) was established two years ago to provide a national cancer information service for patients, their relatives, doctors, and other health professionals.[1] The service is offered by seven trained oncology nurses, who in the past two years have responded to over 30 000 inquiries, largely from patients and their relatives. In a large proportion of our inquiries we encourage and help patients and relatives to go back and speak to their doctors. Our experience shows that patients and their relatives do want in depth information about the disease and its treatment from a reliable and authoritative source. Patients are frustrated by the difficulty in getting such information from their doctors, who are often too busy to spend time dealing with this complex disease. This difficulty is compounded by the lack of cancer specialists, especially in the community. There is an ease in speaking to those who are familiar with the disease, are trained to communicate, and have the experience of the effects of cancer not only on the patients but on their families as well.

We would argue strongly that there is a great need for more cancer physicians, particularly in district general hospitals.

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1 Clement-Jones V. Cancer and beyond: the formation of BACUP. *Br Med J* 1985;291:1021-3.

SIR,—In a well balanced article Dr L J Donaldson has drawn attention to the arguments for a district cancer physician. I would like to make some additional points.

Firstly, radiotherapists and clinical haematologists are specifically examined in their diplomas in the use of cytotoxic drugs. Secondly, I have found my surgical colleagues to be particularly safe in administering cytotoxic drugs, and my chest physician colleagues have lately aquired great skill in the use of cytotoxic drugs with the advent of real advances in treatment, particularly of small cell lung cancer. Thirdly, please remember that we are talking about only a score or so of really usable drugs. Finally, if we do have a district cancer physician I think he will need a diploma which includes a fair chunk of cancer in the examination paper. It would also need to have some statistics, radiation protection, and terminal care as part of its syllabus. Does, I wonder, such a diploma already exist?

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How to take a teaching ward round

SIR,—Mr Alan R Berry (19 September, p 725) indicates the difficulties of teaching small numbers of medical students in hospital wards.

Perhaps it is time for the emphasis of medical student teaching in hospital to change. General practice is now attracting many able doctors and teachers, there are still enough patients in the community to allow teaching in very small groups, and in the community we are not constrained by ward routine.

Judging by the waiting times, there are still plenty of referrals to outpatients. Perhaps medical students should spend their time with these patients in their homes, before either the outpatient appointment or admission to hospital, and be allowed to present the history and examination in the usual way. This would have the additional advantage of providing the students with an understanding of the patients' home environment. It would be expensive in student time, but surely the benefits could be considerable.

I valued my teaching ward rounds as a medical student, but as society progresses so must medical education.

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Emergency phlebography service

SIR,—We wish to comment on the reply to our article (22 August, p 474) from Dr Ian Sykes and colleagues (19 September, p 724). As radiologists we perform those investigations required by the clinicians which are likely to help in their management of the patient. Patients referred for phlebography have a clinically suspected deep vein thrombosis; if the clinician suspects a ruptured Baker's cyst ultrasonography or arthrography is performed. If phlebography shows nothing abnormal it is up to the referring clinicians to determine whether or not further investigation is warranted.

We cannot agree with any of the statements in their last paragraph. Only those patients with a proved deep vein thrombosis will receive anticoagulation so the "unnecessary risk" in patients with the pseudothrombophlebitis syndrome does not occur. The urgent management decision is surely to determine the presence of a deep vein thrombosis, which carries the complications of pulmonary embolism and death.

The purpose of our article was to show that, if phlebography is to be performed, it is better to do it immediately than to admit the patient and perform the investigation during more convenient working hours. The authors' letter appears to have little or no relevance to our original article.

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Cardiac tamponade

SIR,—Dr John Horgan discusses the clinical presentation of cardiac tamponade in terms of respiratory distress and shock and emphasises the importance of early diagnosis (5 September, p 563). A further symptom may help in preventing delay in diagnosis: dysphagia was found in three consecutive cases seen recently at this hospital.

In each case the origin of the tamponade was malignant disease; cytological examination of pericardial fluid and sputum disclosed adenocarcinomatous cells. All three patients (aged 54, 65, 65) were smokers. While each patient complained predominantly of progressive breathlessness, which became rapidly worse around the time of admission, their dysphagia was scarcely less distressing. After pericardiocentesis (the volume of effusion drained ranged from 1·5 to 2·5 litres) not only was breathlessness improved but dysphagia was relieved. This suggests a direct pressure effect of the enlarged pericardial sac on the oesophagus, by analogy with mitral stenosis, where left atrial enlargement may also cause dysphagia.[1]

In a review of pericardial constriction Hirschmann gave dysphagia as a symptom,[2] and Thurber *et al*[3] describe 10 of 55 patients with malignant pericardial disease complaining of dysphagia, but it is not mentioned in the *Oxford Textbook of Medicine*[4] or Hurst's *The Heart*.[5] In any patient with respiratory distress and dysphagia the possibility of cardiac tamponade should be considered.

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1 Dines DE, Anderson MW. Giant left atrium as a cause of dysphagia. *Ann Intern Med* 1966;65:759-61.
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Dysphagia in acute stroke

SIR,—Dr Caroline Gordon and colleagues dealt with dysphagia as a complication of acute stroke (15 August, p 411). Although we would intuitively agree with the points of this paper, we do not think that the main conclusions can be accepted on the evidence given.

There are major methodological problems. Admission criteria are not clearly stated. Patients were entered in the study up to two weeks after the occurrence of an acute stroke. In 44% of cases dysphagia had resolved within two weeks. Some of the "patients without dysphagia" therefore probably did have dysphagia which had resolved by the time of entry in the trial. The assessment of dehydration appears to have been based on fluid balance charts and measurements of packed cell volume and urea concentrations, but they admit that the data collected for both groups of patients are incomplete. Criteria for the definition of chest infection are not given. No statistically significant difference in the incidence of chest infection was found between those with and those without dysphagia. No statistical support is given for the apparent differences in packed cell volume and urea between the two groups.

This study gives clear evidence that dysphagia may complicate unilateral cerebral hemisphere stroke, that it is associated with more severe or multiple strokes, and that it is associated with an increased risk of death (although the assumption that unconscious patients had dysphagia may have confounded the results). The concluding paragraph states that "if dysphagia is identified early after a stroke happens dehydration and chest infections may be prevented with nasogastric tubes or intravenous fluids until swallowing recovers." On the same data it might be rephrased "no significant difference was found in the incidence of chest infection or dehydration between those with and those without dysphagia in the first two weeks of stroke. There are insufficient data to support a change in current medical practice. Further research is needed."

We also have recognised that many of the patients with stroke in our unit have swallowing problems in the early stages. We find it useful to involve a speech therapist in the management and assessment of such patients as soon as they are fully conscious. Swallowing therapy can help to re-establish and coordinate the swallow, even before oral feeding is possible or safe. In some cases a palatal training appliance improves swallowing coordination and drooling. This consists of a wire loop attached to a dental plate. It is well tolerated and easily fitted.[1]

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1 Selley WG. Swallowing difficulties in stroke patients: a new treatment. *Age Ageing* 1985;14:361-5.

AUTHOR'S REPLY,—The admission criteria are stated clearly and covered 91 consecutive patients admitted to a district general hospital with a clinical diagnosis of acute stroke. We think it likely that these patients were typical of patients with stroke admitted to any district general hospital. Sixty one per cent of patients were seen within 48 hours and 90% within 96 hours of the onset of the stroke. Allowing for delays incurred at home, on ambulance journeys, and at weekends, it seems unlikely that the figures could be improved without more staff. We accept that some patients with dysphagia may have been missed. This could have occurred, for example, in patients who died before reaching hospital or those in whom dysphagia was a transient event which cleared rapidly before, or shortly after, admission to hospital. We also accept that more work needs to be done on the problem of dehydration and its consequences.

Criteria for the definition of chest infections are given in the methods section. We agree that the numbers are small and that the difference between the two groups does not reach statistical significance.

We agree that speech therapists can frequently help patients with dysphagia. We also have experiences of using palatal appliances in a different context.[1] We do not think, however, that a palatal training device would be appropriate for a condition that usually resolves within 14 days.

Finally, we cannot agree with the penultimate paragraph of the letter. Dysphagia is a highly dangerous complication of an acute stroke. Swallowing should be tested in all cases, and if the patients cannot swallow some alternative method of giving fluids should be used. This recommendation does not appear in any of the standard textbooks. Certainly more research is needed.

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1 Enderby PM, Langton-Hewer R. Communication and swallowing. In: Cochrane GM, ed. *Management of motor neurone disease*. London: Churchill Livingstone, 1987:34-5.

SIR,—Dr Caroline Gordon and colleagues have confirmed (15 August, p 411) that dysphagia is a common but generally transient problem after stroke affecting a single cerebral hemisphere and that difficulty in swallowing is associated with an increased early mortality. This relation is confounded, however, by the association between dysphagia and overall severity of stroke, which they also showed.

The β blocker stroke (BEST) study carried out in Nottingham is now complete,[1,2] and data are available from 357 conscious stroke victims seen within 48 hours of the onset of strokes that, by clinical criteria, affected only one cerebral hemisphere. From the table it can be seen that the 29% of patients with impairment of swallowing on day 1 were more likely to be drowsy (and to have other adverse signs) but that they had a substantially increased early mortality, regardless of the initial state of alertness. On the other hand, the pattern of clinically determined causes of death was similar in those with and without swallowing problems, apart from an excess of primary brain deaths, which might be expected in a group with more severe strokes. Moreover, the mean changes in packed cell volume and blood urea concentrations over the first week in surviving patients with dysphagia who were not given intravenous or nasogastric fluid did not differ significantly from those in patients who did not have dysphagia.

Thus any tendency to dehydration or chest infection in conscious stroke victims with transient swallowing difficulty may not be severe enough to add substantially to the early mortality, but more research is needed to determine whether failure to

Outcome in 357 stroke victims with or without impairment of swallowing

Swallowing on day 1	No of patients (% mortality in first month)			Total No of deaths in 6 months	% Of deaths attributed to each cause					
	All	Alert	Drowsy		Primary brain death	Pneumonia	Pulmonary embolism	Cardiac*	Renal failure	Other
Normal	250 (10)	210 (7)	40 (23)	40	10	43	25	15	3	5
Impaired	107 (48)	36 (33)	71 (55)	61	20	44	25	10	2	0
Total	357 (21)	246 (11)	111 (43)	101	16	44	25	12	2	2

*Heart failure, myocardial infarction, arrhythmia.